INSULATION DETECTOR

Patent number:	JP2000028671
Publication date:	2000-01-28
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Classification:	
- international:	G01R31/02; G01R27/18; G01R31/12
- european:	
Application number:	JP19980207230 19980707
Priority number(s):	JP19980207230 19980707

Abstract of **JP2000028671**

PROBLEM TO BE SOLVED: To provide an insulation detector where a device configuration is simpler than an igr insulation detector (a current component caused by the unbalance of insulation resistance against ground), manufacturing cost is made low, and the insulation deterioration of an electric path to be monitored can be detected accurately. SOLUTION: An insulation detector is provided with power supply terminals 10T and 10S for receiving power supply from a T-phase electric circuit 2T and an S-phase electric circuit 2S, a ground terminal 10E that is connected to a ground line 8 of a Type 3 installation construction, a differential amplifier 17 for outputting the differential voltage between the power supply terminal 10T and the grounding terminal 10E being connected to the T-phase electric circuit, and a CPU 22 for detecting insulation deterioration based on the value of the vector sum by performing the discrete Fourier transformation of a leakage current i0 and a voltage signal from the differential amplifier 17 and extracting only the vector component, that is in phase with the reference vector from the leakage current vector with the voltage signal as a reference vector. By obtaining only a current component (igr) caused by the unbalance of the vector component that is in phase with the reference vector is obtained from a leakage current vector, only the current component (igr) caused by the unbalance of the insulation resistance against the ground can be obtained so that the leakage current i0 is detected without being affected by the leakage current component (igc) caused by the unbalance of the capacitance against the ground.
